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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/480,724	01/07/2000	ROBERT CAREY	12640US01	4660

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EXAMINER

DASS, HARISH T

ART UNIT	PAPER NUMBER
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3628

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DATE MAILED: 04/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/480,724

Applicant(s)

CAREY ET AL.

Examiner

Harish T Dass

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Shaughnessy U.S. Patent 6,317,726 in view of India: Financial ratios: Making sense of the numbers, Businessline; Islamabad; Dec 26, 1999.**

Regarding Claims 1 and 13, O'Shaughnessy teaches:

- a). Assigning a first numerical rank to each security in a group of securities according to an evaluation of its price appreciation over a first predetermined period, with the highest rank being assigned to the security with the price appreciation evaluated as the best (Fig 7, col. 9 lines 63-65 & col. 13 lines 29-30).
- c). Assigning a third numerical rank to each security in said group of securities according to its price-to-cashflow ratio, with the highest rank being assigned to the security with the smallest price -to-cashflow ratio (col. 5 lines 19-20).

O'Shaughnessy, however, does not teach:

- d). Explicitly, calculating an average numerical rank that is the average of the first, second, and third numerical ranks for each security in said group of securities and
- e). selecting a desired number of securities having the highest average numerical ranks from said group of securities, forming a group of selected securities.

But, he does display in table the average for selected group of securities (col. 3 Table 1, ABsp lines 12-18 and col. 13 lines 46-47). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the listing of O'Shaughnessy's and calculate the average for numerical rank for each of security in group of securities, using the statistical formulas ( $1/N(\sum X_i \text{ for } i=0 \text{ to } i=N)$ ) or MS-Excel spread sheet. Additionally, to select any number of mixed high ranking securities with different combinations and group them together as a unit to obtain highest numerical average. For this reason, any investor who likes to be objective in selection and ranking of its securities, he can do so by using the statistical mathematics such as averaging. Averaging is a good indicator for comparison of numbers and performance for securities.

- b). O'Shaughnessy discloses selection of a group of securities based on their price appreciation, price-to-cashflow ratio and numerical ranking. O'Shaughnessy , however, does not address selection of securities based on its return-on-assets ratio, with the highest rank being assigned to the security with the greatest

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return-on-assets ratio. But, an article (India: Financial ratios: Making sense of the numbers, Businessline; Islamabad; Dec 26, 1999 - NPL reference) discloses return-on-asset ratio and its effectiveness for picking-up a company stock. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the listing of O'Shaughnessy and incorporate the return-on-asset ratio factor, as taught by the author. By doing so, the investor would be helped to select and pick better securities with good financial numbers and acceptable financial risk.

*NOTE: The following text is from India: Financial ratios: Making sense of the numbers, Businessline; Islamabad; Dec 26, 1999.*

*"Return on assets The RoA is ideal to measure the profitability of operations vis-à-vis the assets deployed." ... "The objective behind using the ratio is to find out the extent of profitability in using resources." and "The RoA is an effective measure for picking up a scrip that is likely to be best rated in its peer group. Most of the highly-valued consumer goods, pharmaceutical and info-tech companies have high RoAs."*

Regarding Claim 2, O'Shaughnessy discloses that investors have used the S&P Compustat Active and Research Database and constructed portfolios of 10, 25, 30, 40 or 50 stocks and discusses about S&P 500 Index (col. 2 lines 9-24, col. 17 lines 43-49 and col. 18 line 57). O'Shaughnessy, however, does not discuss a group of securities consists of the 100 stocks that make up the Nasdaq 100 Index. Nasdaq 100 Index

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have been around for some time and, yet, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use Nasdaq 100 index and invest. Therefore any investor (portfolio manager) can use this index to select desirable stocks and group them together as unit of investment.

Regarding claims 3 and 14-16, O'Shaughnessy discloses selection of group of securities base on their price appreciation and displays use of statistical methods average and standard deviation. Likewise, he does discuss rebalancing of portfolio over various period of time (col. 2 line 3-61). O'Shaughnessy , however, does not explicitly discuss evaluation of price appreciation is accomplished through least squares regression analysis of the periodic price history of each security over period of times such as: least three periods, six months, or twelve months. However, it is obvious that statistical methods such as least squares regression analysis have been around for some time and commonly used in selection of quality parts for automotives, planes, etc. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teaching of O'Shaughnessy and use the least mean regression to evaluate price appreciation using price history. Further, the analysis can be over any period of time (pre-define period such as; 1 year, 6 months, 3 months, etc). Therefore, any investor who appreciates the use of statistical method for selecting securities can use this known tool for calculating and evaluation of securities based on price appreciation for any period of time such as; six months or twelve months or etc.

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Regarding claim 4, O'Shaughnessy discusses numerical ranking of list of stocks, an average for a set common shares and portfolio of 10, 25, 30 or 50 stocks (col. 3 Table 1, Abp and col. 13 lines 46-47, col. 2 lines 9-24). O'Shaughnessy, however, does not explicitly discuss about desired number of securities having the highest average numerical ranks from said group of securities is 15 securities. However, as described above, statistical analyses are prior arts. But, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teaching of O'Shaughnessy and select 15 securities with the highest average of numerical ranks. Therefore, any one who likes a group of securities, for investment, can limit the numbers of securities in a group such as 15 securities in a group A, 20 securities in group B, etc.

Regarding Claims 5-7 and 17-19, O'Shaughnessy discusses buying of a group of 25 or 50 stocks (col. 13, line 52-53), annual rebalancing (col. 2 line 43-47), portfolio returns base on defined factors (col. 1 line 29-30) and market capitalization (ABsp line 9, and col. 21 lines 45-47). O'Shaughnessy, however, does not discuss: a) purchasing said group of selected securities and creating a unit investment trust. b) creating any pooled investment vehicle comprising said purchased securities. c) creating a variable annuity comprising and d) creating an investment account. Still, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teaching of O'Shaughnessy and considered all of the mentioned criteria for purchasing of securities. Additionally, he/she could group the securities together to form a unit

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investment trust, pool of investment vehicle, variable annuity, or investment account.

Therefore, any investor who is seeking a best portfolio return can use the teaching of O'Shaughnessy and purchase a group of selected securities to create a unit investment trust, based on weighted by market capitalization, for better management of his/her portfolio.

Regarding Claims 8-10, O'Shaughnessy discusses an annual rebalancing of portfolios and limits on the number of stocks to be considered (col. 2 line 43-46 and col. 14 line 13-16). O'Shaughnessy , however, does not discuss about unit investment trust is subject to the restriction that none of said selected securities will comprise less than one percent or more than 25 percent of said portfolio and unit investment trust having life of 13 months. In spite of that, widely available mutual fund reports show that the limitation and composition of each sector of the securities they are allow to purchase.

Additionally, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teaching of O'Shaughnessy and could limit and restrict the mixed composition of the securities to an acceptable range. Furthermore, he/she could choose a period of time to reconsidering and rebalancing of his/her portfolios. Therefore, any investor who is considering the investment risk can limit his securities mix to acceptable range (this can be 1-25% of investment) and rebalancing of portfolio every 13 months or so on.

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Regarding Claims 11-12, O'Shaughnessy discloses use of encoding of computer program for Automated Strategies for Investment Management (col. 4 line 6-15), but O'Shaughnessy does not discuss about computer-readable medium having imprinted therein a computer program containing instruction steps such that upon installation. But it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify teaching of O'Shaughnessy and write a program(s) to automate an investment procedure for selecting securities for an investment portfolio. Additionally he/she could add a program script (instruction steps) to automate the program installation and store the application program on the machine-readable media (CD, hard drive or floppy). Further, automated program installation is known and common practice (i.e. documented in computer books) and most of off-the-shelf programs such as Internet browsers, Windows, MS Office suite, etc. Therefore, any person who wants to imprint a computer program with automated installation instruction can use available of-the-shelf books, software and computer readable media to achieve his goal. Additionally, he/she can use the teaching of O'Shaughnessy to make the application program available to other computers beside PCs.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 CFR § 1.111 (c) to consider the references fully when responding to this action.

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- i). Michael J. Sandretto U.S. Patent No. 5,812,988 Sep. 22, 1998 "Method And System For Jointly Estimating Cash Flows, Simulated Returns, Risk Measures And Present Values For Plurality Of Assets"
- ii). Phillip Myron Ginsberg U.S. Patent No. 5,857,176 Jan 5, 1999 "Fixed Income Portfolio Data" William A. Lupien U.S. Patent No. 5,845,266 "Crossing Network Utilizing Satisfaction Density Profile With Price Discovery Feature".


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harish T Dass whose telephone number is 703-305-4694. The examiner can normally be reached on 8:00 AM to 4:5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wynn Coggins can be reached on 703-308-1344. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-395-3900.

Harish T Dass *HTD*  
Examiner  
Art Unit 2165

April 18, 2002

  
WYNN COGGINS  
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